IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant	: Shengfang Jin	Art Unit	: 1646
Serial No.	: 09/774,490	Examiner	:
Filed	: January 31, 2001		
Title	: RESISTANCE SEQUENCES AND USES THEREOF		

Attention: Official Draftsman
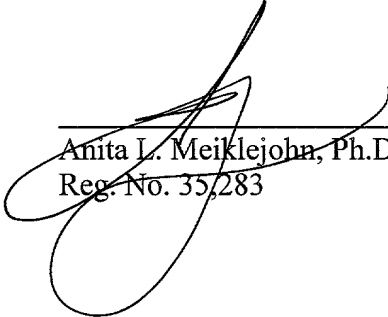Commissioner for Patents
Washington, D.C. 20231

TRANSMITTAL OF FORMAL DRAWINGS

In response to the Notice to File Missing Parts mailed April 3, 2001, please substitute the enclosed 7 sheets of formal drawings for the corresponding drawings presently in the application.

Please apply any charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

Date:_____3| MAY O|_____

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AATCTTTTATTTTATCGATGTTAACAAGCTTAGTAATCGATGCCACGTCGAGGGGTGTCGACC

CACGCGTCCGGGAGTAGGTTGAGCTCGCCTGTTCTCCCATTGTCAGCCAGTCTATTTCCAG

ATTGTTTGAACTTCTCTGGCCGCACAATACAGGAAGGAAGACTAAAGCAGCAAAGGGACCTA

CAGCGTCTGCAGCATGGGCTGGTTAACTAGGATTGTCTGTCTTTTCTGGGGAGTATTACTTA

CAGCAAGAGCAAACTATCAGAATGGGAAGAACAATGTGCCAAGGCTGAAATTATCCTACAAA

GAAATGTTGGAATCCAACAATGTGATCACTTTCAATGGCTTGGCCAACAGCTCCAGTTATCAT

ACCTTCCTTTTGGATGAGGAACGGAGTAGGCTGTATGTTGGAGCAAAGGATCACATATTTTC

ATTCGACCTGGTTAATATCAAGGATTTTCAAAAGATTGTGTGGCCAGTATCTTACACCAGAAG

AGATGAATGCAAGTGGGCTGGAAAAGACATCCTGAAGAATGTGCTAATTTCATCAAGGTAC

TTAAGGCATATAATCAGACTCACTTGTACGCCTGTGGAACGGGGGCTTTTCATCCAATTTGC

ACCTACATTGAAATTGGACATCATCCTGAGGACAATATTTTTAAGCTGGAGAACTCACATTTT

GAAAACGGCCGTGGGAAGAGTCCATATGACCCTAAGCTGCTGACAGCATCCCTTTTAATAGA

TGGAGAATTATACTCTGGAACTGCAGCTGATTTTATGGGGCGAGACTTTGCTATCTTCCGAA

CTCTTGGGCACCACCACCCAATCAGGACAGAGCAGCATGATTCCAGGTGGCTCAATGATCC

AAAGTTCATTAGTGCCCACCTCATCTCAGAGAGTGACAATCCTGAAGATGACAAAGTATACTT

TTTCTTCCGTGAAAATGCAATAGATGGAGAACACTCTGGAAAAGCTACTCACGCTAGAATAG

GTCAGATATGCAAGAATGACTTTGGAGGGCACAGAAGTCTGGTGAATAAATGGACAACATTC

CTCAAAGCTCGTCTGATTTGCTCAGTGCCAGGTCCAAATGGCATTGACACTCATTTTGATGA

ACTGCAGGATGTATTCCTAATGAACTTTAAAGATCCTAAAAATCCAGTTGTATATGGAGTGTT

TACGACTTCCAGTAACATTTTCAAGGGATCAGCCGTGTGTATGTATAGCATGAGTGATGTGA

GAAGGGTGTTCCTTGGTCCATATGCCCACAGGGATGGACCCAACTATCAATGGGTGCCTTAT

CAAGGAAGAGTCCCCTATCCACGGCCAGGAACTTGTCCCAGCAAACATTTGGTGGTTTTGA

CTCTACAAAGGACCTTCCTGATGATGTTATAACCTTTGCAAGAAGTCATCCAGCCATGTACAA

TCCAGTGTTTCCTATGAACAATCGCCCAATAGTGATCAAAACGGATGTAAATTATCAATTTAC

ACAAATTGTCGTAGACCGAGTGGATGCAGAAGATGGACAGTATGATGTTATGTTTATCGGAA

CAGATGTTGGGACCGTTCTTAAAGTAGTTTCAATTCCTAAGGAGACTTGGTATGATTTAGAAG

AGGTTCTGCTGGAAGAAATGACAGTTTTTCGGGAACCGACTGCTATTTCAGCAATGGAGCTT

TCCACTAAGCAGCAACAACTATATATTGGTTCAACGGCTGGGGTTGCCCAGCTCCCTTTACA

CCGGTGTGATATTTACGGGAAAGCGTGTGCTGAGTGTTGCCTCGCCCGAGACCCTTACTGT

GCTTGGGATGGTTCTGCATGTTCTCGCTATTTTCCCACTGCAAAGAGACGCACAAGACGACA

AGATATAAGAAATGGAGACCCACTGACTCACTGTTCAGACTTACACCATGATAATCACCATG

GCCACAGCCCTGAAGAGAGAATCATCTATGGTGTAGAGAATAGTAGCACATTTTTGGAATGC

AGTCCGAAGTCGCAGAGAGCGCTGGTCTATTGGCAATTCCAGAGGCGAAATGAAGAGCGAA

AAGAAGAGATCAGAGTGGATGATCATATCATCAGGACAGATCAAGGCCTTCTGCTACGTAGT

FIG. 1A

CTACAACAGAAGGATTCAGGCAATTACCTCTGCCATGCGGTGGAACATGGGTTCATACAAAC
TCTTCTTAAGGTAACCCTGGAAGTCATTGACACAGAGCATTTGGAAGAACTTCTTCATAAAGA
TGATGATGGAGATGGCTCTAAGACCAAAGAAATGTCCAATAGCATGACACCTAGCCAGAAGG
TCTGGTACAGAGACTTCATGCAGCTCATCAACCACCCCAATCTCAACACGATGGATGAGTTC
TGTGAACAAGTTTGGAAAAGGGACCGAAAACAACGTCGGCAAAGGCCAGGACATACCCCAG
GGAACAGTAACAAATGGAAGCACTTACAAGAAAATAAGAAAGGTAGAAACAGGAGGACCCA
CGAATTTGAGAGGGCACCCAGGAGTGTCTGAGCTGCATTACCTCTAGAAACCTCAAACAAGT
AGAAACTTGCCTAGACAATAACTGGAAAAACAAATGCAATATACATGAACTTTTTTCATGGCA
TTATGTGGATGTTTACAATGGTGGGAAATTCAGCTGAGTTCCACCAATTATAAATTAAATCCA
TGAGTAACTTTCCTAATAGGCTTTTTTTCCTAATACC (SEQ ID NO:1)

FIG. 1B

GACAACAGGTAGAAAAATTCCTGGGCTCAGGCTGGAGTGACACCCTTTTCTTTCCCTAACAT
CTTCTACTCAGATACCTAAATTTAAGATTCAGGACAGCTGTCCCCAACTCTTACCATGTCTTT

TATAACTTGCTCCTTAACTTGCCCAACCTGTAGGCTATCTCATTTTCTCGCTTCACTCTGCAA
GGTTTATAACATGATGAATTTAAATAC (SEQ ID NO:2)   # FIG. 2B

GAATTCTCGAGCTCGTCGACCACGCCCTCCTTGTGCAAGAACTCTGAGCCCCAGGTGCAGG

AGGCTGAGGCCTGCAGAGAGACTTGCAGAGAGACCCAGCAAGCCATGGTGTTTCCATGGA

GATGTGAGGGTACTTACTGGGGCTCGAGGAACATCCTGAAGCTGTGGGTCTGGACACTGCT

CTGTTGTGACTTCCTGATACACCATGGAACTCACTGTTGGACTTACCATTATTCTGAAAAGCC

CATGAACTGGGAAAATGCTAGAAAGTTCTGCAAGCAAAATTACACAGATTTAGTCGCCATAC

AAAACAAGAGAGAAATTGAGTATTTAGAGAATACATTGCCCAAAAGCCCTTATTACTACTGGA

TAGGAATCAGGAAAATTGGGAAAATGTGGACATGGGTGGGAACCAACAAAACTCTCACTAAA

GAAGCAGAGAACTGGGGTGCTGGGGAGCCCAACAACAAGAAGTCCAAGGAGGACTGTGTG

GAGATCTATATCAAGAGGGAACGAGACTCTGGGAAATGGAACGATGACGCCTGTCACAAAC

GAAAGGCAGCTCTCTGCTACACAGCCTCTTGCCAGCCAGGGTCTTGCAATGGCCGTGGAGA

ATGTGTGGAAACTATCAACAATCACACGTGCATCTGTGATGCAGGGTATTACGGGCCCCAGT

GTCAGTATGTGGTCCAGTGTGAGCCTTTGGAGGCCCCTGAGTTGGGTACCATGGACTGCAT

CCACCCCTTGGGAAACTTCAGCTTCCAGTCCAAGTGTGCTTTCAACTGTTCTGAGGGAAGAG

AGCTACTTGGGACTGCAGAAACACAGTGTGGAGCATCTGGAAACTGGTCATCTCCAGAGCC

AATCTGCCAAGTGGTCCAGTGTGAGCCTTTGGAGGCCCCTGAGTTGGGTACCATGGACTGC

ATCCACCCCTTGGGAAACTTCAGCTTCCAGTCCAAGTGTGCTTTCAACTGTTCTGAGGGAAG

AGAGCTACTTGGGACTGCAGAAACACAGTGTGGAGCATCTGGAAACTGGTCATCTCCAGAG

CCAATCTGCCAAGAGACAAACAGAAGTTTCTCAAAGATCAAAGAAGGTGACTACAACCCCCT

CTTCATTCCTGTAGCCGTCATGGTCACCGCATTCTCGGGGCTGGCATTTCTCATTTGGCTGG

CAAGGCGGTTAAAAAAAGGCAAGAAATCTCAAGAAAGGATGGATGATCCATACTGATTCATC

CTTTGTGAAAGGAAAGCCATGAAGTGCTAAAGACAAAACATTGGAAAATAACGTCAAGTCCT

CCCGTGAAGATTTTACACGCAGGCATCTCCCACATTAGAGATGCAGTGTTTGCTCAACGAAT

CTGGAAGGATTTCTTCATGACCAACAGCTCCTCCTAATTTCCCCTCGCTCATTCATCCCATTA

ACCCTATCCCATAATGTGTGTCTATACAGAGTAGTATTTTATCATCTTTTCTGTGGAGGAACA

AGCAAAAGTGTTACTGTAGAATATAAAGACAGCTGCTTTTACTCTTTCCTAACTCTTGTTTCCT

AGTTCAATTCAGCACAGAAGCTAATGCCAAACACAGTGAAAATATGATCCATGAGTAATTGGA

AACTCAGACTCCTTGCGCATAGTACGTACCCTATGTAACATCGACAAAAATCTTTCATTTCCA

CCTCCAAAGAACAGTGCTCTATTCAAGTTGGGAAAGTCCTACTTCCTCTGTAGACCCACTAT

CTGTGAGTGACAGCCACTGTAGCTGTTCACATTAACCTTCCCCATCTCCTTTTCCTAGGAGA

ATAATTCCACACACTGCACCCCATGATGGCCACCAAACATCAAAGAAGGGAAAATCTCCTGC

ATTGAGTTTTAGTTTTGAGTTTTCCCTTCTCTTTATTAGATCTCTGATGGTTCCTTGAAGTCAG

TGTTCTGATGATTATTAATAGTTAATGATAACACAACCCACTCTCTTGGAGCTGATGTTATGAA

FIG. 2A

GTCGACCCACGCGTCCGCAGACCTAGTAGCTGTGGAAACCATGGCCCTGAGTGTCATGTGT
CTGGGCCTTGCCCTGCTTGGGGTCCTGCAGAGCCAGGCCCAGGACTCAACTCAGAACTTGA
TCCCTGCCCCATCTCTGCTCACTGTCCCCCTGCAGCCAGACTTCCGGAGCGATCAGTTCCG
GGGCAGGTGGTACGTTGTGGGCCTGGCAGGCAATGCGGTCCAGAAAAAAACAGAAGGCAG
CTTTACGATGTACAGCACCATCTATGAGCTACAAGAGAACAATAGCTACAATGTCACCTCCAT
CCTGGTCAGGGACCAGGACCAGGGCTGTCGCTACTGGATCAGAACATTTGTTCCAAGCTCC
AGGGCTGGCCAGTTCACTCTGGGAAATATGCACAGGTATCCTCAGGTACAGAGCTACAATG
TGCAAGTGGCCACCACGGACTACAACCAGTTCGCCATGGTATTTTTCCGAAAGACTTCTGAA
AACAAGCAATACTTCAAAATTACCCTGTATGGAAGAACCAAGGAGCTGTCCCCTGAACTGAA
GGAACGTTTCACCCGCTTTGCCAAGTCTCTGGGCCTCAAGGACGACAACATCATCTTCTCTG
TCTGTCTGCCACTCCATCTTTCCTGTTGCCAGAGAGCCACCTGGCTGCCCCACCAGCCACC
ATACCAAGGAGCATCTGGAGCCTCTTCTTATTTGGCCAGCACTCCCCATCCACCTGTCTTAA
CACCACCAATGGCGTCCCCTTTCTGCTGAATAAATACATGCCCCCAAAAAAAAAAAAAAAAGG
GCGGCCGC (SEQ ID NO:3)

FIG. 3A

MALSVMCLGLALLGVLQSQAQDSTQNLIPAPSLLTVPLQPDFRSDQFRGRWYVVGLAGNAVQK
KTEGSFTMYSTIYELQENNSYNVTSILVRDQDQGCRYWIRTFVPSSRAGQFTLGNMHRYPQVQS
YNVQVATTDYNQFAMVFFRKTSENKQYFKITLYGRTKELSPELKERFTRFAKSLGLKDDNIIFSVC
LPLHLSCCQRATWLPHQPPYQGASGASSYLASTPHPPVLTPPMASPFC (SEQ ID NO:4)

FIG. 3B

CCCCTTTTGGTTTTTGTTCTATCGACCCTAACAAGCTTAGTAATCGATGCCACTCGAGGCCAA
GAATTCATTACGAGCCTGAGCTCCTTCGGCTTTTTCCCCCCTTTTGCATCTTGTTTCCCGGGA
TACCTGCAACTCAAGGATGGATGCCCTGAGACTGGCAAATTCAGCTTTTGCTGTTGACTTGT
TCAAACAACTATGTGAAAGGGACCCAGCAGGAAACATTCTCTTCTCTCCAATATGCCTCTCTA
CTTCTCTGTCCCTTGCGCAAGTGGGCACCAAAGGCGACACAGCAAATGAAATTGGACAGGT
CCTTCATTTTGAGAATGTCAAAGATGTACCCTTTGGGTTTCAAACAGTCACTTCTGATGTTAA
TAAGCTCAGTTCTTTTTACTCTTTGAAACTTGTCAAGCGACTCTACATAGACAAATCTCTGAAC
CCTTCTACAGAATTTATCAGTTCTACCAAAAGACCATATGCAAAGAATTGGAAACTGTTGAC
TTCAAAGACAAACTGGAAGAAACGAAAGGTCAAATTAACAGCTCCATTAAGGAGCTCACAGA
TGGCCACTTTGAGGACATTTTGTCAGAGAACAGTATAAGTGACCAGACCAAAATCCTTGTGG
TTAATGCTGCCTACTTTGTTGGAAAGTGGATGAAGAAATTTCCGGAATCAGAAACAAAAGAAT
GTCCTTTCAGAATCAGCAAGACAGACACCAAACCCGTACAAATGATGAATCTTGAGGCCACT
TTCTGCTTGGGTAACATTGATGACATCAGCTGTAAGATCATAGAACTTCCTTTCCAGAATAAG
CATCTGAGTATGCTCATTGTGCTCCCCAAGGACGTGGAGGATGAGTCCACAGGCCTGGAGA
AGATTGAACAGCAACTCAACCCAGAAACATTGTTACAGTGGACCAACCCCAGTACCATGGCC
AATGCCAAAGTCAAACTTTCCCTCCCAAAGTTTAAGGTAGAAAAGATGATTGATCCCAAGGCT
AGTCTGGAAAGCCTAGGGCTGAAAAGTCTCTTCAATGAAAGTACATCGGATTTCTCTGGAAT
GTCAGAGACCAAGGGAGTGTCCCTGTCAAATGTGATTCATAGAGTATGCCTAGAAATAACCG
AAGATGGTGGTGAGTCCATCGAGGTGCCAGGGTCCCGGATCTTACAGCACAAGGATGAATT
CAATGCTGACCATCCATTTATTTATATCATTAGACACAACAAAACTCGAAACATCATTTTTCTTT
GGCAAATTCTGTTCTCCTTAGCTGGCAGGGCCTTGCCAAGTCTCAGGGAACTTGTCTGTAGT
CGCAGAGCTCTGTAAACTTTGTATCCAGACAATCACTTTCTATACAATAAATTGTAAATGTTG
CTGAAAAAAAAAAAAAAAAAAAAAAAA (SEQ ID NO:5)

FIG. 4

GGTGGAGACTAAATATAATCTTTTATTTTATCGATGTTAACAAGCTTAGTAATCGATGCCACG
TCGAGGGGTGTCGACCCACGCGTCTCGCTTGCCTGTTCCTTTTCCACGCATTTTCCAGGATA
ACTGTGACTCCAGGCCCGCAATGGATGCCCTGCAACTAGCAAATTCGGCTTTTGCCGTTGAT
CTGTTCAAACAACTATGTGAAAAGGAGCCACTGGGCAATGTCCTCTTCTCTCCAATCTGTCT
CTCCACCTCTCTGTCACTTGCTCAAGTGGGTGCTAAAGGTGACACTGCAAATGAAATTGGAC
AGGTTCTTCATTTTGAAAATGTCAAAGATGTACCCTTTGGATTTCAAACAGTAACATCGGATG
TAAACAAACTTAGTTCCTTTTACTCACTGAAACTAATCAAGCGGCTCTACGTAGACAAATCTC
TGAATCTTTCTACAGAGTTCATCAGCTCTACGAAGAGACCCTATGCAAAGGAATTGGAAACT
GTTGACTTCAAAGATAAATTGGAAGAAACGAAAGGTCAGATCAACAACTCAATTAAGGATCTC
ACAGATGGCCACTTTGAGAACATTTTAGCTGACAACAGTGTGAACGACCAGACCAAAATCCT
TGTGGTTAATGCTGCCTACTTTGTTGGCAAGTGGATGAAGAAATTTCCTGAATCAGAAACAAA
AGAATGTCCTTTCAGAGTCAACAAGACAGACACCAAACCAGTGCAGATGATGAACATGGAGG
CCACGTTCTGTATGGGAAACATTGACAGTATCAATTGTAAGATCATAGAGCTTCCTTTTCAAA
ATAAGCATCTCAGCATGTTCATCCTACTACCCAAGGATGTGGAGGATGAGTCCACAGGCTTG
GAGAAGATTGAAAAACAACTCAACTCAGAGTCACTGTCACAGTGGACTAATCCCAGCACCAT
GGCCAATGCCAAGGTCAAACTCTCCATTCCAAAATTTAAGGTGGAAAAGATGATTGATCCCA
AGGCTTGTCTGGAAATCTAGGGCTGAAACATATCTTCAGCGAAGACACATCTGATTTCTCT
GGAATGTCAGAGACCAAGGGAGTGGCCCTATCAAATGTTATCCACAAAGTGTGCTTAGAAAT
AACTGAAGATGGTGGGGATTCCATAGAGGTGCCAGGAGCACGGATCCTGCAGCACAAGGAT
GAATTGAATGCTGACCATCCCTTTATTTACATCATCAGGCACAACAAAACTCGAAACATCATT
TTCTTTGGCAAATTCTGTTCTCCTTAAGTGGCATAGCCCATGTTAAGTCCTCCCTGACTTTTC
TGTGGATGCCGATTTCTGTAAACTCTGCATCCAGAGATTCATTTTCTAGATACAATAAATTGC
TAATGTTGCTGGATCAGGAAGCCGCCAGTACTTGTCATATGTAGCCTTCACACAGATAGACC
TTTTTTTTTTTTTTCCAATTCTATCTTTTGTTTCCTTTTTTCCCATAAGACAATGACATACGCTTTT
AATGAAAAGGAATCACGTTAGAGGAAAAATATTTATTCATTATTTGTCAAATTGTCCGGGGTA
GTTGGCAGAAATACAGTCTTCCACAAAGAAAATTCCTATAAGGAAGATTTGGAAGCTCTTCTT
CCCAGCACTATGCTTTCCTTCTTTGGGATAGAGAATGTTCCAGACATTCTCGCTTCCCTGAAA
GACTGAAGAAAGTGTAGTGCATGGGACCCACGAAACTGCCCTGGCTCCAGTGAAACTTGGG
CACATGCTCAGGCTACTATAGGTCCAGAAGTCCTTATGTTAAGCCCTGGCAGGCAGGTGTTT
ATTAAAATTCTGAATTTTGGGGATTTTCAAAAGATAATATTTTACATACACTGTATGTTATAGAA
CTTCATGGATCAGATCTGGGGCAGCACCCTATAAATCACCACCTTAATATGCTGCAACAAAA
TGTAGAATATTCAGACAAAATGGATACATAAAGACTAAGTAGCCCATAAGGGGTCAAATTTTG
CTGCCAAATGCGTATGCCACCAACTTACAAAAACACTTCGTTCGCAGAGCTTTTCAGATTGT

FIG. 5A

GGAATGTTGGATAAGGAATTATAGACCTCTAGTAGCTGAAATGCAAGACCCCAAGAGGAAGT
TCAGATCTTAA (SEQ ID NO:6)

FIG. 5B

	Semaphorin D	Maspin	B94	mel-14 Antigen	24p3	Proliferin
Expression in EMT6 tumors	Up-regulated in CDDP resistant tumor	Down-regulated in CDDP resistant tumor	Up-regulated in CDDP resistant tumor	Up-regulated in CDDP resistant tumor	Up-regulated in CDDP resistant tumor	Up-regulated in CDDP resistant tumor
Expression in EMT6 cell lines	Remain up-regulated in CDDP resistant cell line to passage 13 (passage 3, 6, 10, and 13 checked)	Remain down-regulated in CDDP resistant cell line to passage 3	Remain up-regulated in CDDP cell line to passage 10	Remain up-regulated in CDDP cell line to passage 10	Remain up-regulated in CDDP cell line to passage 10	Remain up-regulated in CDDP cell line to passage 10
Expression in multi-cell line pairs (A2780, UCLA, U937, HL60, SCC25 pairs)	Higly expressed in SCC25 CDDP cell line, not significantly expressed in other cell line pairs.	Highly expressed in SCC25 wild type cell line (and HL60 AD cell line), not significantly expressed in other cell line pairs.	Differentially expressed in HL60 and U937 cell lines (lower in resistant cell line).	Differentially expressed in HL60 cell lines (high in HL60 and HL60Rev, low in HL60AD)	Slightly up-regulated in SCC25 CDDP cell line; not significantly differentially expressed in other cell line pairs.	Slightly up-regulated in A2780AD and SCC25 CDDP cell lines; Not significantly differentially expressed in other cell line pairs.

FIG. 6